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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/673,398	09/30/2003	Si-Hyun Song	041993-5353	3749

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EXAMINER

ADAMS, GREGORY W

ART UNIT	PAPER NUMBER
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3652

DATE MAILED: 12/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/673,398

Applicant(s)

SONG, SI-HYUN

Examiner

Gregory W. Adams

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 September 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☒ Certified copies of the priority documents have been received in Application No. 61912/2002.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Priority

1. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy has been filed in parent Application No. 61912/2002, filed on October 10, 2002.

Drawings

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Referring to claims 7 and 8, "spacers" must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will

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be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 4 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 4 provides for the use of first and second substrate, but, since the claim does not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by Stadler et al. (US 5,236,548).

With respect to claim 1, referring to FIGS. 1-2 Stadler et al. disclose a cassette device 1, frame 5, and support bars 8 connected to slots 9.

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With respect to claim 2, referring to FIGS. 1-2 Stadler et al. disclose support bars 8 of acetal resin. Col. 5, Ins. 39-46.

With respect to claim 3, referring to FIGS. 1-2 Stadler et al. disclose support bars 8 having a contact surface.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 4-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stadler et al. (US 5,236,548) in view of Inoue (US 6,769,948).

With respect to claim 4, Stadler et al. '548 do not disclose thin film transistor arrays or color filters. Referring to FIGS. 1A-2 Inoue disclose a cassette device, first substrate 1 having thin film transistor arrays, and second substrate 2 having color filters as a process step for cassette devices handling substrates. Col. 1, Ins. 24-30. Inoue teaches that substrate carrying cassette devices include thin film transistors arrays and color filters to be processed through a production system. Col. 2, In 17-18. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include substrates comprising thin film transistor arrays and color filters in the cassette device of Stadler et al., as per the teachings of Inoue, such that substrates within cassette devices include thin film transistors arrays and color filters to be processed through a production system.

With respect to claim 5, Stadler et al. '548 do not disclose liquid crystal layers between substrates. Referring to FIGS. 1A-2 Inoue disclose a liquid crystal layer between first substrate 1 and second substrate 2 as a production step for substrates carried by cassette devices. Col. 1, Ins. 24-30. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include liquid crystal layer between substrates carried within the cassette device of Stadler et al., as per the teachings of Inoue, such that a liquid crystal layer is between first substrate 1 and second substrate 2 as a production step for substrates carried by cassette devices.

With respect to claim 6, Stadler et al. '548 do not disclose application of liquid crystal layer to substrates. Referring to FIGS. 1A-2 Inoue disclose application of liquid crystal layer to substrate 1,2 as a production step for substrates carried by cassette devices. Col. 1, Ins. 24-30. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply a liquid crystal layer to substrates carried within the cassette device of Stadler et al., as per the teachings of Inoue, such that a liquid crystal layer is between first substrate 1 and second substrate 2 as a production step for substrates carried by cassette devices.

With respect to claim 7, Stadler et al. '548 do not disclose spacers. Referring to FIGS. 1A-2 Inoue disclose the use of spacers between first substrate 1 and second substrate 2 to fabricate a color filter. Col. 1, In. 42-43. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to add spacers to substrates carried within the cassette device of Stadler et al., as per the teachings of Inoue, such that a color filter is fabricated.

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With respect to claim 8, Stadler et al. '548 do not disclose patterned spacers.

Referring to FIGS. 1A-2 Inoue disclose a use of patterned spacers between first substrate 1 and second substrate 2 to fabricate a color filter. Col. 1, ln. 42-43. It is noted that Inoue is not limited to random spacer distribution. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include patterned spacers to substrates carried within the cassette device of Stadler et al., as per the teachings of Inoue, such that a color filter is fabricated.

With respect to claim 9, referring to FIGS. 1-2 Stadler et al. discloses the claimed invention as recited in claims 1-3 above except for a robot arm. It would have been an obvious to one having ordinary skill in the art at the time the invention was made to add a robot arm since it was known in the art that substrate processing devices move substrate between processing devices with robot arms.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

US 6,273,275 to Kim et al.

US 5,476,176 to Gregerson et al.

US 5,393,226 to Groom

US 3,486,631 to Rodman

US 6,617,225 to Boyle et al.

US 4,653,636 to Armstrong

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory W. Adams whose telephone number is (703) 305-0555. The examiner can normally be reached on M-F, 8:30am-5pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eileen D. Lillis can be reached on (703) 308-3248. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

GWA



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